

ECE 273 ~~Q8~~ Q9

Name:

Honor Code:

KEY

1. A state machine has flip-flop equations

$$D_1 = Q_2' Q_3$$

$$D_3 = Q_3' Q_2$$

$$D_2 = Q_2$$

and output equation

$$Z = X Q_2' Q_3$$

As usual, D_i represents a flip-flop input

Q_i represents a flip-flop output

X represents the circuit input

Z represents the output

What type of machine is this?

Mealy

2. Given the state graph below, what is the output for:

$$X = 0 \ 1 \ 0 \ 1 \ 0 \ 0 \ 0 \ 1 \ 1 \ 0$$

$$Z = 0 \ 1 \ 0 \ 0 \ 0 \ 0 \ 0 \ 1 \ 1 \ 0$$

